

RUSS, AUGUST & KABAT

1 RUSS, AUGUST & KABAT
2 Marc A. Fenster, State Bar No. 181067
3 mfenster@raklaw.com
4 Brian D. Ledahl, State Bar No. 186579
5 bledahl@raklaw.com
6 Neil A. Rubin, State Bar No. 250761
7 nrubin@raklaw.com
8 James S. Tsuei, State Bar No. 285530
9 jtsuei@raklaw.com
10 Qi (Peter) Tong, State Bar No. 300347
11 ptong@raklaw.com
12 12424 Wilshire Boulevard, 12th Floor
13 Los Angeles, California 90025
14 Telephone: (310) 826-7474
15 Facsimile: (310) 826-6991

16 Attorneys for Plaintiff
17 COREPHOTONICS, LTD.

18
19
20
21
22
23
24
25
26
27
28
UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA

COREPHOTONICS, LTD.

Plaintiff,

vs.

APPLE INC.

Defendant.

Case No. 3:17-cv-06457-JD (Lead Case)
Case No. 5:18-cv-02555-JD

**COREPHOTONICS, LTD.'S
SUPPLEMENTAL BRIEF REGARDING
CLAIM CONSTRUCTION**

TABLE OF CONTENTS

I.	INTRODUCTION	1
II.	ARGUMENT	2
A.	Apple Waived Any Argument that “Camera Controller” Should be Construed As a “Means-Plus-Function” Term	2
B.	This Court Is Not Bound by Ex Parte Reexamination’s Interpretation of “Camera Controller” Under the “Broadest Reasonable Interpretation” Standard.....	3
C.	Neither Prosecution History Estoppel, Disclaimer, nor Collateral Estoppel Apply to Compel the Court to Construe “Camera Controller” Under Section 112(f)	4
D.	The “Camera Controller” Term Conveys Sufficient Structure to a POSITA	7
III.	CONCLUSION.....	10

TABLE OF AUTHORITIES

Cases

<i>Apple Inc. v. Corephotonics, Ltd.</i> , 2020 WL 6530790 (Patent Tr. & App. Bd., 2020)	3
<i>Barkan Wireless IP Holdings, L.P. v. Samsung Elecs. Co.</i> , 2019 WL 497902 (E.D. Tex. Feb. 7, 2019)	7
<i>Delta T LLC v. MacroAir Techs., Inc.</i> , 2021 WL 3721455 (C.D. Cal. Mar. 29, 2021)	8
<i>Dyfan, LLC v. Target Corp.</i> , 28 F.4th 1360 (Fed. Cir. 2022)	7, 9
<i>Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.</i> , 815 F.3d 1314 (Fed. Cir. 2016)	3
<i>Fromson v. Advance Offset Plate, Inc.</i> , 755 F.2d 1549 (Fed. Cir. 1985)	4
<i>In re Donaldson Co.</i> , 16 F.3d 1189 (Fed. Cir. 1994)	3
<i>In re Man Mach. Interface Techs. LLC</i> , 822 F.3d 1282 (Fed. Cir. 2016)	4
<i>Infinity Prods., Inc. v. Oki Data Am., Inc.</i> , 987 F.3d 1053 (Fed. Cir. 2021)	4
<i>Janjua v. Neufeld</i> , 933 F.3d 1061 (9th Cir. 2019)	5
<i>Krippelz v. Ford Motor Co.</i> , 667 F.3d 1261 (Fed. Cir. 2012)	4
<i>Maxell, Ltd. v. VIZIO, Inc.</i> , 2022 WL 19569526 (C.D. Cal. Dec. 21, 2022)	8
<i>O2 Micro, International, Ltd. v. Beyond Innovation Technology Co.</i> , 521 F.3d 1351 (Fed. Cir. 2008)	2
<i>Ohio Willow Wood Co. v. Alps S., LLC</i> , 735 F.3d 1333 (Fed. Cir. 2013)	5
<i>Omega Eng'g, Inc. v. Raytek Corp.</i> , 334 F.3d 1314 (Fed. Cir. 2003)	4
<i>Phillips v. AWH Corp.</i> , 415 F.3d 1303 (Fed. Cir. 2005)	4, 5, 6
<i>SanDisk Corp. v. Memorex Prod., Inc.</i> , 415 F.3d 1278 (Fed. Cir. 2005)	3
<i>SkyHawke Techs., LLC v. Deca Int'l Corp.</i> , 828 F.3d 1373 (Fed. Cir. 2016)	6

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

<i>Sound View Innovations, LLC v. Facebook, Inc.</i> , 2017 WL 2221177 (D. Del. May 19, 2017).....	8
<i>Subotincic v. 1274274 Ontario Inc.</i> , 2012 WL 3112005 (C.D. Cal. June 14, 2012)	8
<i>Sysmex Corp. v. Beckman Coulter, Inc.</i> , 2022 WL 1237787 (D. Del. Apr. 27, 2022).....	8
<i>Williamson v. Citrix Online, LLC</i> , 792 F.3d 1339 (Fed. Cir. 2015).....	4, 7
<i>Zeroclick, LLC v. Apple Inc.</i> , 891 F.3d 1003 (Fed. Cir. 2018).....	7
Statutes	
35 U.S.C. § 112(6)	7, 8
35 U.S.C. § 112(f).....	passim

I. INTRODUCTION

Through two rounds of claim construction briefing in both 2018 and 2022, Apple never identified the term “camera controller” in the ’291 patent as requiring construction at all, and certainly never suggested that it should be interpreted as a means-plus-function claim element. Because the term does not use the word “means,” Federal Circuit precedent presumes that it is not a means-plus-function term. Apple bears the burden of overcoming that presumption. On June 30, 2023, the Patent Office issued its reexamination certificate confirming the patentability of claims 1-7, 10, 11, and 14 of the ’291 patent as originally issued. *See* Ex. 8, at 2.¹ Apple has requested further briefing about the interpretation of the “camera controller” claim element and the application of means-plus function interpretation under 35 U.S.C. § 112(f), but has never put forward any proposed construction of this term or evidence to overcome the presumption against such interpretation.

The Patent Office’s confirmation of the ’291 claims followed a December 2022 non-final Office Action, which found those same claims patentable and interpreted the term “camera controller” in claim 1 as means-plus-function language under 35 U.S.C. 112(f). Corephotonics agreed with the Patent Office that claims 1-7, 10, 11, and 14 of the ’291 patent should be confirmed but disagreed with the means-plus-function treatment of the “camera controller” term. On April 24, 2023, Corephotonics filed remarks requesting confirmation of the claims, but specifically disputing means-plus-function treatment of “camera controller” for six separate reasons. *See* Ex. Dkt. 171-2, at 7-9. The reexamination terminated thereafter with the June 2023 issuance of the reexamination certificate.

The reexamination proceedings have no effect on whether the term “camera controller” should be briefed to or construed by this Court for claim construction. This case has now undergone two rounds of claim construction exchanges and briefing (in late 2018, at Dkts. 95, 96, 98, and in late 2022, Dkts. 147, 148, 150, 151, 153). Until Corephotonics filed its April 2023 remarks, neither side here had ever identified “camera controller” as needing construction at all,

¹ Citations to Exhibits refer to those attached to the Declaration of James S. Tsuei filed concurrently herewith.

so both parties waived it. Even now, Apple does not purport to assert that “camera controller” uses the word “means” or is a nonce term subject to Section 112(f). To the extent Apple believes “camera controller” must be construed as means-plus-function under *Phillips* (and it is not clear it does), Apple waived that argument by even now failing to present argument or evidence supporting that position.

Apple has implied that Corephotonics’ April 2023 remarks operate as an estoppel. That argument is baseless. The broadest reasonable interpretation (“BRI”) construction of a term is not an identical issue to the term’s *Phillips* construction. Further, Corephotonics made no statements in the reexamination amounting to clear or unmistakable disclaimer of claim scope. Corephotonics agreed to the patentability of the claims, disagreed with how the Examiner arrived at that conclusion, and filed remarks reserving its right to dispute the means-plus-function interpretation.

Even if the Court orders that “camera controller” be added to the list of terms for construction in this case, this term needs no construction. Voluminous extrinsic and intrinsic evidence, and the great weight of authority from many courts facing similar issues, confirm that “camera controller” is not a generic placeholder or nonce term. As illustrated by the declaration of Corephotonics’ expert, Dr. John Hart, “camera controller” (including specifically its constituent term, “controller”) refers to a class of structures well-known to persons of ordinary skill in the art.

For those reasons—explained further below—Corephotonics submits that the *ex parte* reexamination should have no effect on the claim construction proceedings before this Court.

II. ARGUMENT

A. Apple Waived Any Argument that “Camera Controller” Should be Construed As a “Means-Plus-Function” Term

Apple waived its right to argue for a means-plus-function interpretation of the “camera controller” term when Apple chose to not identify that term by the agreed deadline of July 6, 2022 to identify terms for construction. Dkt. 128, at 1. Apple again chose to not brief “camera controller” under means-plus-function construction by the October 20, 2022 deadline for briefing. *Id.* Thus, Apple waived its right to dispute this claim term. Apple’s previously cited cases apply when parties *timely* raised disputed terms. *O2 Micro, International, Ltd. v. Beyond Innovation Technology Co.*, 521 F.3d 1351, 1357 (Fed. Cir. 2008) (noting that the parties timely raised the

dispute during claim construction); *Eon Corp. IP Holdings LLC v. Silver Spring Networks, Inc.*, 815 F.3d 1314, 1317 (Fed. Cir. 2016) (noting dispute raised during “claim construction proceedings”). Neither *O2 Micro* nor any of Apple’s other cited authorities grant all parties a blanket license to freely ignore the Court’s deadlines for claim construction disclosures and briefing and to continue manufacturing new claim construction disputes after the deadlines.

Not only has Apple waived a means-plus-function construction of “camera controller” in this case, it has never contended it to be so in the many parallel actions it has filed against Corephotonics’ patents, including both its 2019-filed IPR and 2022-filed reexamination request against the ‘291 patent. Indeed, Apple has succeeded in obtaining IPR decisions invalidating claims of related Corephotonics patent claims containing the term “camera controller” under a plain and ordinary meaning (not means-plus-function) construction of the term. *E.g.*, *Apple Inc. v. Corephotonics, Ltd.*, 2020 WL 6530790, at *3–4, *6–7 (Patent Tr. & App. Bd., 2020). Apple’s continuing failure to advance a means-plus-function construction, both in this case and others, constitutes an admission that “camera controller” is not a means-plus-function term.

Thus, the Court can easily resolve this dispute by issuing a text order finding the construction of “camera controller” waived because neither party timely briefed it, and Apple has waived any argument that it is a means-plus-function term. The Federal Circuit defers to the District Court’s discretion on issues of untimely arguments that violate this Court’s local rules. *SanDisk Corp. v. Memorex Prod., Inc.*, 415 F.3d 1278, 1292 (Fed. Cir. 2005).

B. This Court Is Not Bound by Ex Parte Reexamination’s Interpretation of “Camera Controller” Under the “Broadest Reasonable Interpretation” Standard

The *ex parte* reexamination proceedings have no effect on claim construction. “Application of 35 U.S.C. 112(f) is driven *by the claim language*, not by applicant’s intent or mere statements to the contrary included in the specification or made during prosecution.” MPEP 2181(I) (citing *In re Donaldson Co.*, 16 F.3d 1189, 1194, 29 USPQ2d 1845 1850 (Fed. Cir. 1994) (emphasis added), available at <https://www.uspto.gov/web/offices/pac/mpep/s2181.html>). Courts look at “whether **the words of the claim** are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Williamson v. Citrix Online, LLC*, 792

1 F.3d 1339, 1348 (Fed. Cir. 2015) (emphasis added). Thus, the test is whether the claim contains
2 “means for” and whether the element recites structure.

3 Further, an examiner’s interpretation of the claim in a non-final office action has no binding
4 effect on decisions of this Court. *See Fromson v. Advance Offset Plate, Inc.*, 755 F.2d 1549, 1555
5 (Fed. Cir. 1985) (“The Examiner’s decision, on an original or reissue application, is never binding
6 on a court.”). Here, the Examiner used the “broadest reasonable interpretation” standard to
7 interpret the claims, but the law requires this Court to construe the claims pursuant to their “plain
8 and ordinary meaning” under *Phillips*, a different standard altogether. *See* Dkt. 171-2, at 8; *Phillips*
9 *v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) ; *In re Man Mach. Interface Techs. LLC*, 822
10 F.3d 1282, 1286 (Fed. Cir. 2016). Thus, the Examiner’s BRI construction cannot bind this Court
11 on a plain and ordinary meaning construction.

12 Finally, Apple cites no case suggesting that a new office action would suddenly require
13 means-plus-function treatment for the “camera controller” term. Neither of Apple’s cases *Infinity*
14 *Prods., Inc. v. Oki Data Am., Inc.*, 987 F.3d 1053, 1059 (Fed. Cir. 2021) nor *Krippelz v. Ford*
15 *Motor Co.*, 667 F.3d 1261, 1266 (Fed. Cir. 2012) use prosecution history to determine whether
16 means-plus-function interpretation applies to a term.

17 **C. Neither Prosecution History Estoppel, Disclaimer, nor Collateral**
18 **Estoppel Apply to Compel the Court to Construe “Camera Controller”**
Under Section 112(f)

19 Likewise, Apple does not (and cannot) argue that prosecution history estoppel or disclaimer
20 apply to control claim construction in this case. Apple has not and cannot point to anything
21 disclaimed by Corephotonics, much less a disavowal of claim scope that is “both clear and
22 unmistakable.” *Omega Eng’g, Inc. v. Raytek Corp.*, 334 F.3d 1314, 1326 (Fed. Cir. 2003). Here,
23 Corephotonics specifically lodged objections and asserted a reservation of rights against means-
24 plus-function treatment of the “camera controller” term.

25 To the extent Apple argues that Corephotonics is collaterally estopped from arguing that
26 “camera controller” should not be construed as a means-plus-function term, it is wrong for the
27 reasons outlined in Corephotonics’ opposition to Apple’s administrative motion. *See* Dkt. 172.
28 Application of collateral estoppel requires meeting all four of these elements: “(1) the issue at stake

1 was identical in both proceedings; (2) the issue was actually litigated and decided in the prior
 2 proceedings; (3) there was a full and fair opportunity to litigate the issue; and (4) the issue was
 3 necessary to decide the merits.” *Janjua v. Neufeld*, 933 F.3d 1061, 1065 (9th Cir. 2019). None of
 4 these elements have been met.

5 Apple cannot show factor 1 is satisfied because the issue before this Court (that is, the
 6 proper construction of the “camera controller” term under *Phillips*) is different from the issue
 7 before the Examiner (which is the meaning of the term under BRI). Likewise, Apple cannot show
 8 factor 2 is met, first, because the proper *Phillips* construction of the “camera controller” term was
 9 not before the Patent Office, and second, because the proper BRI construction of “camera
 10 controller” (to the extent even relevant to claim construction here) was not actually litigated. In
 11 this Circuit, “an issue is actually litigated when an issue ***is raised, contested, and submitted for***
 12 ***determination.***” *Janjua*, 933 F.3d at 1066. Both Corephotonics and the Examiner in the *ex parte*
 13 proceedings agreed that claim 1 of the ’291 patent was allowable (albeit for different reasons).
 14 Though the Examiner *sua sponte* raised the issue in December 2022, and Corephotonics had an
 15 *opportunity* to contest it and submit it for determination, Corephotonics instead asked the
 16 Examiner to confirm the claims while reserving its right to dispute the means-plus-function
 17 application in the future. *See id.* at 1067 (explaining policy rationale for limiting claim preclusion
 18 to issues actually “contested”). And because Apple cannot show even that the “issues” in the
 19 separate proceedings are identical, it cannot meet factors 3 and 4 of the test.

20 Apple’s cases do not circumvent these four required elements of collateral estoppel. In
 21 *Ohio Willow Wood*, the court resolved a dispute about whether the same issue was previously
 22 litigated under factor (1) when a later case asserted patent claims that had “different language” but
 23 otherwise were “substantially similar” to other claims previously held invalid. *Ohio Willow Wood*
 24 *Co. v. Alps S., LLC*, 735 F.3d 1333, 1342 (Fed. Cir. 2013). That case does not say that construing
 25 claims under different standards are identical issues under factor (1), does not address the
 26 remaining elements of collateral estoppel, and does not otherwise allow Apple to circumvent the
 27 four required elements.

28 Finally, Apple appears to argue that Corephotonics is estopped because the Office Action

gave notice to Corephotonics that “Patent Owner may” dispute the means-plus-function interpretation. Dkt. 171 at 2. In response to the Examiner, Corephotonics made its position clear: it told the Examiner that it reserved “the right to contend that the limitation ‘camera controller’ is not subject to 35 U.S.C. 112(f)” for at least six reasons, and specifically noted the Examiner had “not evaluated any claim limitations ... under *Phillips*.” Dkt. 171-2, at 8. Apple cannot show Corephotonics should be estopped from by its explicit reservation of rights in a Patent Office proceeding involving an issue different from one facing the Court.

SkyHawke Techs., LLC v. Deca Int’l Corp., 828 F.3d 1373, 1376 (Fed. Cir. 2016) is instructive. There, patentee SkyHawke appealed to the Federal Circuit seeking a “correction” of the Patent Office’s BRI interpretation of a means-plus-function term in an *inter partes* reexamination, in which all of SkyHawke’s patent claims were **confirmed**. SkyHawke’s fear of collateral estoppel from the PTAB’s BRI claim construction, however, was unfounded. First, as the prevailing party before the PTAB (just as Corephotonics was the prevailing party with respect to the claims requiring a “camera controller”), SkyHawke was unable to appeal the PTAB’s claim construction decision, rendering preclusion inapplicable. 828 F.3d at 1376. Second, “[b]ecause the Board applies the broadest reasonable construction of the claims while the district courts apply a different standard of claim construction as explored in *Phillips v. AWH Corp.*, the issue of claim construction under *Phillips* to be determined by the district court has not been actually litigated.” *Id.* Third, the court continued, “judicial estoppel will not bind SkyHawke to the Board’s claim construction, because judicial estoppel only binds a party to a position that it advocated and successfully achieved. SkyHawke clearly did not advocate the claim construction ultimately adopted by the Board.” *Id.* Finally, “the claim construction adopted by the Board cannot create prosecution history disclaimer, at least because a party can avoid such disclaimer by opposing such statements when made by the Patent Office, which SkyHawke has done here.” *Id.*

Corephotonics, like SkyHawke, objected to the Patent Office’s BRI determination of means-plus-function treatment while acquiescing to the confirmation of its patent claims. This cannot, the Federal Circuit held, preclude the patentee from later arguing from “its preferred claim construction to the district court” under *Phillips*. *Id.*

D. The “Camera Controller” Term Conveys Sufficient Structure to a POSITA

If the Court construes “camera controller,” the Court should find that the term is not subject to Section 112(f) and that the term has its plain and ordinary meaning. Corephotonics’ position is as follows.

The term “camera controller” has a plain and ordinary meaning that does not require any further construction. Because it does not “use the word ‘means’ [there is] a rebuttable presumption that § 112, ¶ 6 does not apply.” *Zeroclick, LLC v. Apple Inc.*, 891 F.3d 1003, 1007 (Fed. Cir. 2018). Thus, Apple bears the burden to show that this claim term “fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Williamson v. Citrix Online, LLC*, 792 F.3d 1339, 1349 (Fed. Cir. 2015). Put another way, “[i]f the limitation connotes sufficiently definite structure, it is not drafted in means-plus-function format, and § 112 ¶ 6 does not apply.” *Dyfan, LLC v. Target Corp.*, 28 F.4th 1360, 1365-66 (Fed. Cir. 2022). The Federal Circuit recently explained, the “essential inquiry” is “whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Id.* Apple cannot overcome the presumption that 35 U.S.C. § 112(6) does not apply. As an initial matter, as in *Zeroclick*, Apple has presented no evidence to rebut the presumption that the term is not a means-plus-function element, nor could it make such a showing.

First, the term “controller” itself is structural, which is made clear by the existence of technical dictionary definitions of the term. *See* Declaration of John C. Hart (“Hart Decl.”) ¶ 9; Ex. 1, at 2 (IEEE Standards Terms dictionary providing structural definitions of “controller”). A POSITA would understand the word “controller” itself to convey structure, for example: “The component of a system that functions as a system controller. A controller typically sends program messages to and receives response message from devices.” Ex. 1, at 2.

Many courts have likewise found the term “controller” to be structural rather than a nonce term. *See, e.g., Barkan Wireless IP Holdings, L.P. v. Samsung Elecs. Co.*, 2019 WL 497902, at *22–23 (E.D. Tex. Feb. 7, 2019) (holding the term “controller” to convey structure and to not be a “nonce” term under *Williamson*); *Sysmex Corp. v. Beckman Coulter, Inc.*, 2022 WL 1237787, at

*4 (D. Del. Apr. 27, 2022) (“[T]he magistrate judge correctly pointed to case law demonstrating that ‘controller’ describes a known class of structures and is not merely a nonce term describing only functions.”); *Sound View Innovations, LLC v. Facebook, Inc.*, 2017 WL 2221177, at *5 (D. Del. May 19, 2017) (“‘Controller’ may be a class of structures, rather than one specific structure, and may be defined with functional terms, but that does not make it means-plus-function.”); *Maxell, Ltd. v. VIZIO, Inc.*, 2022 WL 19569526, at *14 (C.D. Cal. Dec. 21, 2022) (“[T]he Court finds that ‘controller’ is not a means-plus-function claim term.”); *Subotincic v. 1274274 Ontario Inc.*, 2012 WL 3112005, at *16–17 (C.D. Cal. June 14, 2012) (“‘controller’ ‘do[es] not amount to ‘nonce words’ or ‘verbal constructs’ that are simply substitutes for the term ‘means for’”).

Second, because “controller” refers to a class of structures, a “camera controller” is similarly a structural element. A POSITA would understand this term to refer to structure including one or more components (including software and/or hardware) within a system responsible for communications between a camera and other components in the system. *See* Hart Decl. ¶¶ 6-9.

Delta T LLC v. MacroAir Techs., Inc., 2021 WL 3721455, at *22 (C.D. Cal. Mar. 29, 2021), illustrates this point. There, the court found the term “motor controller” to be a term which connoted structure. Notably, it found that the modifier word “motor” in “motor controller,” like “camera” in the term “camera controller” does here, independently also conveyed structure. *Id.* (“The word ‘motor’ is structural, as evidenced by the language of the claim which includes a motor.”). And, like here, the “term ‘motor controller’ is also used in a structural way in the language of the claims.” *Id.* The ’291 patent requires, as just one example, the “camera controller” to be “operatively coupled to the Wide and Tele imaging sections.” ’291 patent, cl. 1.

As further evidence that “camera controller” would be a familiar term to a POSITA—and not a “nonce” term implicating § 112(6)—*Apple itself* and countless other camera, imaging, and consumer device technology companies regularly use this exact phrase in their own patents and patent applications. *See* Hart Decl. ¶ 10. *See*, for example:

- Ex. 5, at 5:63-6:10 (U.S. Patent No. 8,565,709, assigned to Apple, stating: “**The camera circuitry 80** may include a microelectronic image sensor array 90 and a **camera controller 92**. The camera controller 92 (e.g., implemented as a combination of programmed data processing components and hardwired logic circuitry) manages the process of capturing images. It does so by generating various commands that are signaled to the sensor array 90, which captures light from a scene.”);

- Ex. 4, at [0086], [0101] (U.S. Patent App. Pub. 2021/0318798, assigned to Apple, discussing “depth camera controller” as a component of the I/O subsystem);
- Ex. 3 (U.S. Patent App. Pub. 2018/0184005, assigned to Renesas Electronics, titled “Camera controller, and a calibration method for a correction lens”);
- Ex. 6, at [0077] (U.S. Patent App. Pub. 2020/0120261, assigned to Nikon Corp., discussing “**camera controller 21 of the camera body 2** transmit[ing] the driving instruction speed (unit: pulse/second) of the focus lens 33 to the lens barrel 3”); and
- Ex. 7 (U.S. Patent No. 10,218,907 assigned to Canon Inc., stating: “When a user performs a power-on operation (ON operation) on an imaging device using the operating unit 131, **the camera controller 132 detects a state change of the imaging device**. The camera controller 132 performs power supply and an initial setting to each circuit of the camera main body 120.”).

As Dr. Hart explains, the term “camera controller” is a structural term that is widely used by POSITAs. Hart Decl. ¶¶ 6-13. This holds true not only in patents and patent applications in same field, but also in technical literature. For example, Nicholas R. Waltham, Ian G. van Breda, and Graham M. Newton “Simple transputer-based CCD camera controller”, Proc. SPIE 1235, Instrumentation in Astronomy VII, (1 July 1990) (“Waltham 1990”), discusses a particular design of camera controller as a part of a CCD-based camera. Waltham 1990 shows that a “camera controller” was understood to be a piece of hardware for use in a camera system. For example, Waltham 1990 article, at 239-330, lists the structures comprising the “camera hardware” discussed in the article as including specifically the “camera controller,” and states that the camera controller software “was written in the Occam language.” Hart Decl. ¶¶ 14-15.; Ex. 2, at 239-330, 335.

Third, the intrinsic record and specification of the ’291 patent demonstrates that “camera controller” recites sufficient structure. Dr. Hart confirms that the class of known structures corresponding to “camera controller” include hardware and/or software that communicates information to and from a camera. Claim terms may describe a “class of structures” and still recite “sufficiently definite structure.” *Dyfan*, 28 F.4th at 1366. Further, “[i]ntrinsic evidence...can be informative in determining whether the disputed claim language recites sufficiently definite structure.” *Id.* The specification is replete with disclosures consistent with Dr. Hart’s understanding, such as:

- Claim 1: requiring the “camera controller” be “operatively coupled to the Wide and Tele imaging sections”
- Figure 1A (architectural diagram depicting camera controller 114 and connections between camera controller 114 and imaging sections)

- 6:19-23 (portion of camera controller “used to choose, according to the zoom factor, which of the sensors is operational and to control the exposure mechanism and the sensor readout”)
- 7:43-45 (“To prevent matching FOVs in both sensors to be scanned at different times, a particular configuration is applied by the camera controller on both image sensors while keeping the same frame rate”)

These disclosures are consistent with Dr. Hart’s opinion that a camera controller, from the perspective of a POSITA, can correspond to hardware and/or software controlling a camera.

Thus, the term “camera controller” is not subject to Section 112(f). However, even if the Court determines it is a nonce term and/or subject to means plus function treatment, the claims would provide reasonable certainty to a POSITA because the specification and claims disclose sufficient structure for accomplishing the recited “combine in still mode at least some of the Wide and Tele image data . . .” and “provide without fusion continuous zoom video mode output images of the object or scene . . .” limitations. Such structural disclosures would be any combination of the following: ’291 patent, at 6:10-36; 9:15-44; 11:6-12:2, FIG. 1A (object 114), FIG. 5, and FIG. 6, as well as the claims of the ’291 patent which, for example, require the “camera controller” be “operatively coupled” to the recited imaging sections. *See* Hart Decl. ¶¶ 20-22. As Dr. Hart explains, the disclosures in the specification of the ’291 patent correspond to the claimed functionality, including, for example, column 9’s discussion of an image fusion embodiment as corresponding to the “combine in still mode at least some of the Wide and Tele image data . . .” portion of the limitation, and column 11’s discussion of video zoom embodiment corresponding to the “provide without fusion continuous zoom video mode . . .” portion of the limitation.

At this time, Apple has not identified any extrinsic evidence supporting an argument that Section 112(f) should apply to “camera controller,” and nor has Apple argued that the term is a means-plus-function or “nonce” term. Corephotonics thus reserves the right to address any arguments or evidence Apple may provide in response or in advance of the claim construction hearing in this case.

III. CONCLUSION

For the foregoing reasons, the Patent Office’s means-plus-function treatment of “camera controller” neither binds this Court nor serves as a basis to reopen claim construction in this case or to otherwise construe the term as a means-plus-function term under Section 112(f).

RUSS, AUGUST & KABAT

DATED: July 10, 2023

Respectfully submitted,

RUSS AUGUST & KABAT

By: /s/ James S. Tsuei
Marc A. Fenster (CA Bar No. 181067)
Brian D. Ledahl (CA Bar No. 186579)
Neil A. Rubin (CA Bar No. 250761)
James S. Tsuei (CA Bar No. 285530)
Qi (Peter) Tong (CA Bar No. 300347)
RUSS AUGUST & KABAT
12424 Wilshire Boulevard, 12th Floor
Los Angeles, California 90025
Telephone: (310) 826-7474
Facsimile: (310) 826-6991
mfenster@raklaw.com
bledahl@raklaw.com
nrubin@raklaw.com
jtsuei@raklaw.com
ptong@raklaw.com

Attorneys for Plaintiff
Corephotonics, Ltd.

CERTIFICATE OF SERVICE

I certify that counsel of record who are deemed to have consented to electronic service are being served on July 10, 2023, with a copy of this document via the Court's CM/ECF systems per Local Rule CV-5(a)(3). Any other counsel will be served by electronic mail, facsimile, overnight delivery and/or First Class Mail on this date.

/s/ James S. Tsuei

RUSS, AUGUST & KABAT